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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,984	01/17/2002	Gernot von Haas	017399-0202	3228

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EXAMINER

FONTAINE, MONICA A

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/047,984	Applicant(s) VON HAAS, GERNOT	
	Examiner Monica A Fontaine	Art Unit 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 8-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the Amendment filed 3 December 2004.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bielfeldt (U.S. Patent 5,538,676), in view of Beck, Jr. (U.S. Patent 3,776,538), further in view of Reiniger (U.S. Patent 4,933,125). Regarding Claim 1, Bielfeldt shows that it is known to carry out a method for the continuous manufacture of wood material boards having a textured surface on at least one side (Abstract), comprising forming a particle mat of a wood, treated with a binding agent, onto a continuously moving conveyor belt (Figure 1, elements 2, 5); introducing the mat between steel belts each circulating around one of an upper and lower frame part of a continuously operating press (Figure 1, elements 1, 2); and after the step of introducing the mat, curing the mat in the continuously operating press to form an endless wood material board by applying pressure and heat to the mat (Figure 1, element 1; Column 4, lines 37-39), wherein the continuously operating press comprises at least one endless metal mesh belt configured to circulate with a corresponding one of said steel belts and with the mat (Figure 1, elements 2, 6, 14), wherein the metal mesh belt and the corresponding steel belt are configured to pass through

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an insulating tunnel, in a return run, to reduce heat loss by thermal radiation (Figure 1, elements 8, 11, 12, 13; Column 4, lines 29-38; It is noted that the limitation does not require the insulating tunnel of the mesh belt and the insulating tunnel of the steel belt to be the same insulating tunnel, nor does it require the mesh belt and the steel belt to pass through an insulating tunnel simultaneously. It merely requires them both to pass through an insulating tunnel. It is interpreted that presses 12 and 13 create an insulating tunnel which reduce heat loss to the steel band.), wherein the metal mesh belt is configured to pass through a heating tunnel, which is separated from the corresponding steel belt (Figure 1, elements 8, 11). Bielfeldt does not show a specific material for his metal mesh belt which has a thermal conductivity considerably higher than that of the corresponding steel belt and having a thermal expansion coefficient approximately equal to that of the corresponding steel belt. Beck, Jr. shows that it is known to use an aluminum mesh belt in a molding process (Column 3, lines 17-18; It is noted that aluminum has a thermal conductivity considerably higher than steel (see "Properties of Metal" table from Engineer's Edge) and a thermal expansion coefficient approximately equal to that of steel (see "Materials Selection and Properties" document from Melles Griot). Although Beck, Jr. is not concerned with making wood material boards, Beck, Jr. and Bielfeldt are combinable because they are both concerned with the same technology of heat transfer to a product. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Beck, Jr.'s aluminum mesh belt as the mesh belt in Bielfeldt's molding process in order to obtain the proper thermal differences needed to produce the desired article. Furthermore, Bielfeldt does not explicitly teach keeping the mesh belt at a temperature at least 40°C higher than that of the steel belt. However, he teaches maintaining distinct temperatures

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for the steel belts and the mesh belt (Column 3, lines 12-15, 43-45; It is noted that unless the method is taking place in a very hot room, there would easily be a 40°C temperature difference between a 100°C mesh belt and a non-heated steel belt.). Therefore, absent unexpected results, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to keep the mesh belt 40°C warmer than the steel belt in order to promote optimal processing conditions for a specific molding material. Finally, Bielfeldt does not teach a specific pressure which is applied on the mat. Reiniger shows that it is known to carry out a method of making a wood-based mat wherein curing of the mat comprises applying a specific pressure to the mat of at least 0.3 N/mm² during a first at least 80% of a pressing time (Column 10, lines 62-65). Bielfeldt and Reiniger are combinable because they are concerned with a similar technical field, namely, that of molding operations which yield wood-based composite mats. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Reiniger's specific pressure in Bielfeldt's molding process in order to obtain the desired thickness and density of the product.

Regarding Claim 4, Bielfeldt shows the process as claimed as discussed in the rejection of Claim 1 above, including teaching maintaining a mesh belt at a temperature of 100°C and does not show a heated steel belt (Column 3, lines 13-14; It is noted that unless the method is taking place in a very hot room, there could be a 80°C temperature difference between a 100°C mesh belt and a non-heated steel belt.). Therefore, absent unexpected results, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to keep the mesh belt 80°C warmer than the steel belt in order to promote optimal processing conditions for a specific molding material.

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Regarding Claim 6, Bielfeldt shows the process as claimed as discussed in the rejection of Claim 1 above, including a method further comprising the step of spraying one or both face strata of the mat with water (Column 3, lines 6-7), meeting applicant's claim.

Regarding Claim 7, Bielfeldt shows the process as claimed as discussed in the rejection of Claim 1 above, including a method further comprising the step of preheating one or both face strata of the mat with steam (Column 3, lines 40-42), meeting applicant's claim.

Claims 2, 3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bielfeldt, Beck, and Reiniger as applied to claim 1 above, and further in view of Bielfeldt (U.S. Patent 5,762,980), hereafter "Bielfeldt '980".

Regarding Claim 2, Bielfeldt shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show measuring density. Bielfeldt '980 shows that it is known to carry out a method of making a wood-based mat further comprising the step of measuring a density profile of the formed endless wood material board, after the step of curing the mat, wherein the heating mechanism is configured to heat the metal mesh belt to a temperature profile that directly depends on said density profile (Column 7, lines 18-31). Bielfeldt '980 and Bielfeldt are combinable because they are concerned with a similar technical field, namely, that of molding methods which yield wood-based mats. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to follow Bielfeldt '980's measuring step during Bielfeldt's, Beck's and Reiniger's molding process in order to control the quality of the end product.

Regarding Claim 3, Bielfeldt shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show adjusting the density profile. Bielfeldt '980 shows that it is known to carry out a method of making a wood-based mat further comprising the step adjusting a symmetrical or asymmetrical raw density profile in the formed endless wood material board, by adjusting a heat input into the side of the mat which is to be textured (Column 7, lines 18-42). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to follow Bielfeldt '980's adjusting step during Bielfeldt's, Beck's, and Reiniger's molding process in order to control the quality of the end product.

Regarding Claim 5, Bielfeldt shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show a specific moisture content of the mat. Bielfeldt '980 shows that it is known to carry out a method of making a wood-based mat wherein said step of introducing the mat comprises introducing the mat with a moisture content of less than or equal to approximately 9 weight percent (Column 4, lines 1-6). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Bielfeldt '980's moisture level for the mat in Bielfeldt's, Beck's, and Reiniger's molding process in order to obtain a desired moisture level in the final product.

Response to Arguments

Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patent is cited to further show the state of the art with regard to making wood articles:

U.S. Patent 4,341,260 to Ishibachi et al.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A Fontaine whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Maf
February 22, 2005



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SUPERVISORY PATENT EXAMINER